

Work Order ID 133789

Wednesday, June 17, 2015 2:52:56 PM

133789

Page 1

Item ID: D3407-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Tow Ring
 Start Date: 6/17/2015 Start Qty: 20.00 ***20*** Cust Item ID:
 Required Date: 6/17/2015 Req'd Qty: 20.00 ***20*** Customer:
 Reference:

Approvals: Process Plan: MCS Date: JUN 17 2015 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3407	Rev E								

100 Large Fab 0.00 ***100*** 20 15-06-24 MAL
 Large Fab Memo 0.06
 Large Fab Weld D3407-1/-5 using welding rod TIG174 as per Dwg D3407 & QSI 004
 A/R TIG174 ROD Batch: M102576

110 QC9- Inspect visual per QSI004- Fusion Welds 0.00 ***110*** 20 15-07-07 DAS
 QC Memo 0.01 9
 Quality Control 9-89

120 QC5- Inspect part completeness to step on W/O 0.00 ***120*** 20 P.T.O.
 QC Memo 0.01 38
 Quality Control JUL 03 2015

DQA:

Date: 15/07/13



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: 15/07/09

Work Order update only ☐

Work Order: 133789	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
Part No. D3407-041		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. 15-5185		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☒	Composite ☐	Supplier ☐	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	15-06-25/100		10	10 part to 133789 D3407-S are not conforming to drawing. Ring has a .060" chamfer and drawing D3407 calls to deburr .060"	5/7/6	acceptable as is non structural	15/7/6	DAS 38 9-89 JUL 13 2015	DAS 9 9-89 JUL 13 2015
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator ☒									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General	
☐ Bending	☐ Bend	☐ Folio/Program
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear
☐ Crushing	☐ Countersink	☐ Misaligned/off center
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set
☐ Turning Sequence	☐ Finish	☐ Out of Calibration
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☒ Other
		inspection

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel <i>M 131545</i> Memo **Mask Threaded Section* START TIME: <i>8:15</i> OVEN TEMPERATURE: <i>1400°</i> FINISH TIME: <i>8:45</i>	0.00 0.01				<i>20</i>	<i>0</i>	<i>15-7-7</i>	<i>23 98</i>
140 *140* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.01				<i>(20)</i>			DAS 38 9-89 111 07 2015
150 *150* Packaging Packaging	Identify as per dwg & Stock Location: <i>ST530</i> Memo	0.00 0.03				<i>(20)</i>	<i>J.A</i>		DAS 27 9-29 JUL 07 2015

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC21- Final Inspection - Work Order Release	0.00							JUL 08 2015
160									
QC	Memo	0.00							
Quality Control									

MLJ

MLJ JUL 08 2015

Picklist Print

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Work Order ID: 133789

133789

Parent Item: D3407-041

D3407-041

Parent Item Name: Tow Ring

Start Date: 6/17/2015

Required Date: 6/17/2015

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP Rev:A05.10.14New issueKJ/EC
IPP Rev:B 08-09-09 revE as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3407-1		Manufactured	No			100	Each	46.0000	1	20			

D3407-1

Stem

Location	Loc Qty	Loc Code
WA001	46	
129410 X11	11	
<u>132466 X9</u>	35	

X20

15-06-24 MAL

D3407-5	Manufactured	No			100	Each	36.0000	1	20
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D3407-5

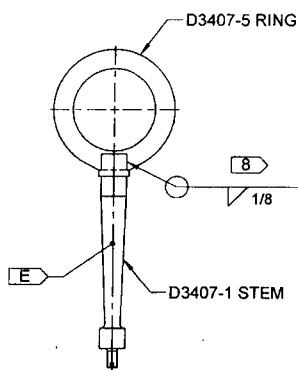
Ring

Location	Loc Qty	Loc Code
WA001	10	
130488	10	
WA002	26	
<u>131894 X10</u>	10	
<u>132659 X10</u>	16	

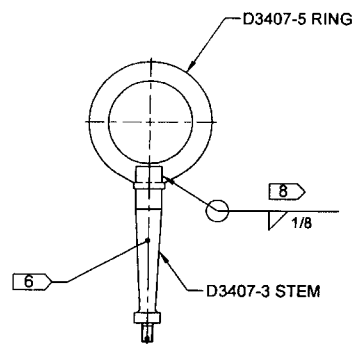
X20

15-06-24 MAL

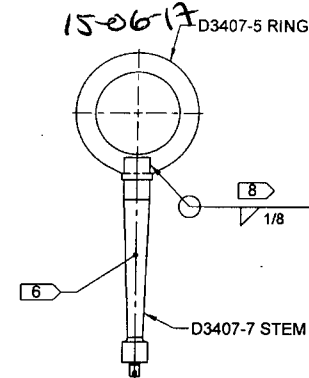
QTY -041	QTY -043	QTY -045	PART NUMBER	DESCRIPTION
X			D3407-041	TOW RING
	X		D3407-043	TOW RING
		X	D3407-045	TOW RING
1			D3407-1	STEM
	1		D3407-3	STEM
1	1	1	D3407-5	RING
		1	D3407-7	STEM



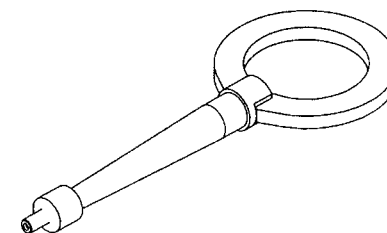
D3407-041 TOW RING



D3407-043 TOW RING



D3407-045 TOW RING



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ON OUR
NO. 133789, M.L.S.

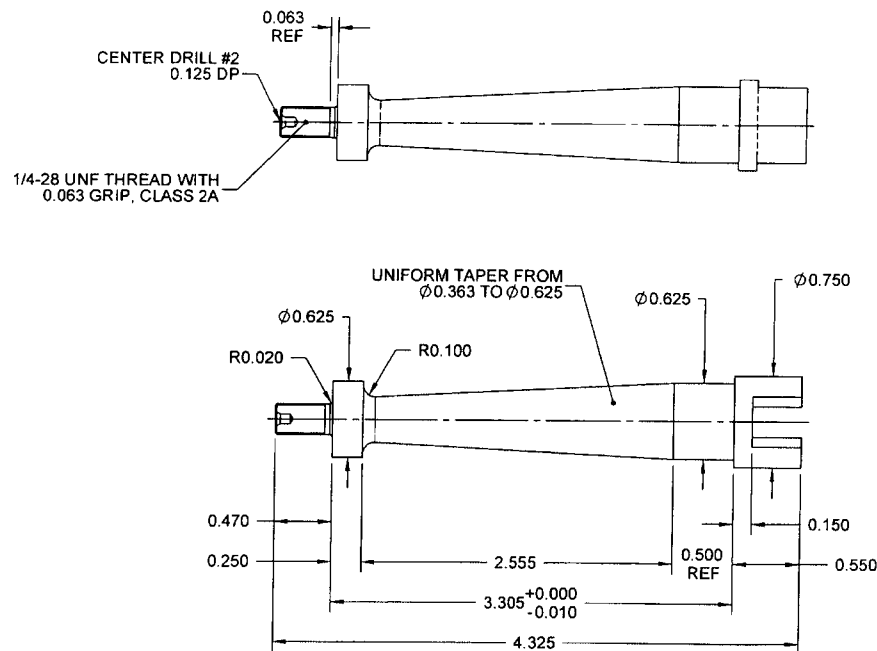
150617

RELEASED

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
- 8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

E	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY	PH	08.07.23
D	D3407-1/3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
C	-1/3 LONGER FOR FIT WWASHER	CP	05.09.09
B	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN			
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		TOW RING	NTS
DATE	08.07.23	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



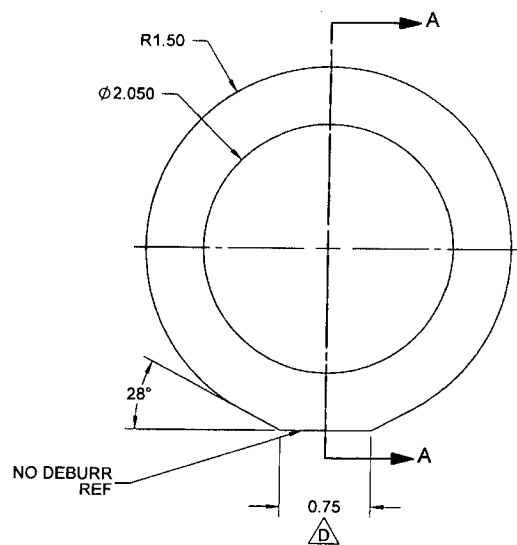
D3407-3 STEM

RELEASED
08-07-23

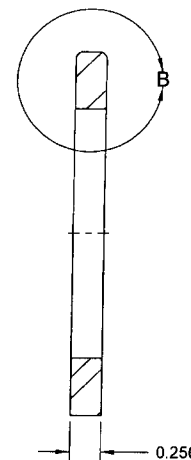
NOTES:

- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.27 lbs

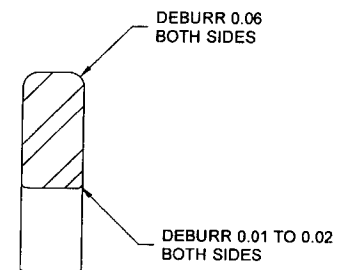
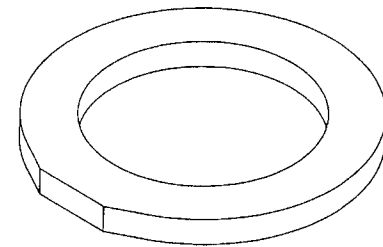
DESIGN		DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		TOW RING	NTS
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D3407-5 RING



SECTION A-A



**DETAIL B
SCALE 2X**

RELEASED
08-08-0111

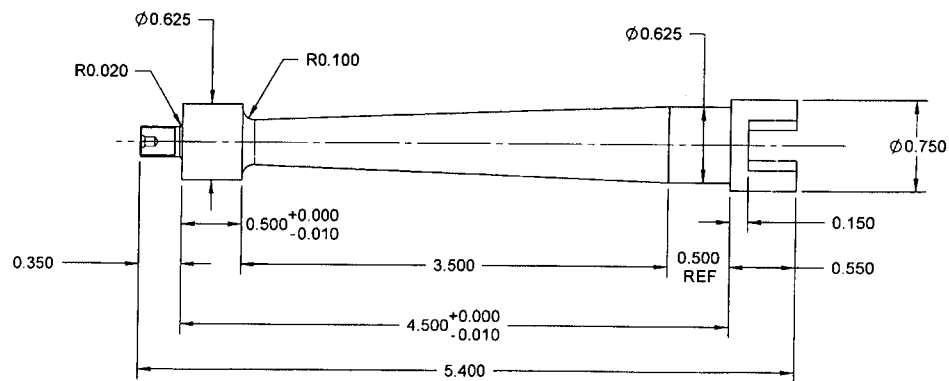
NOTES:

- 1) MATERIAL: 17-4 PH SS BAR PER AMS 5604/5643 (REF. DART SPEC M17-4-B)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.27 lbs

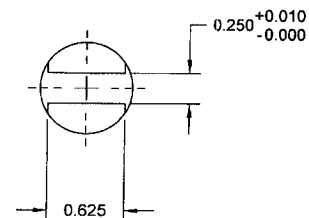
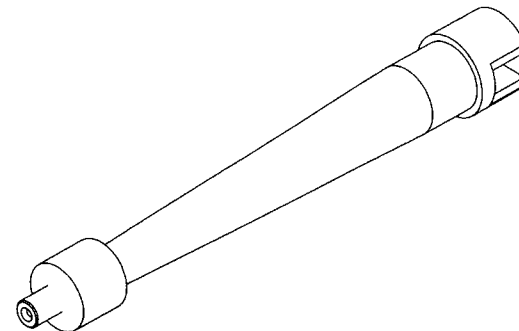
DESIGN	92	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	1/81		
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 4 OF 5
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DE APPR.		TOW RING	NTS
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0.063
REF
CENTER DRILL #2
0.125 DP

1/4-28 UNF THREAD WITH
0.063 GRIP, CLASS 2A



D3407-7 STEM



RELEASED

NOTES:

- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.34 lbs

DESIGN	AJS	DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 5 OF 5
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